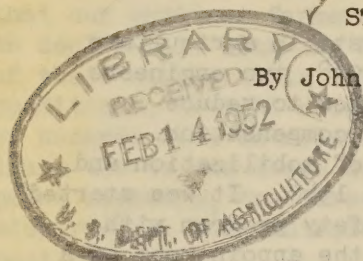


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STATE FARM SAFETY PROGRAMS 1/

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Specialists in farm and home safety had been employed in at least 12 States by 1951.^{2/} The practice of employing specialists to promote farm and home safety as a means of reducing the heavy annual toll of accidents on farms was begun in this country by private organizations, sponsored by farm people, about 17 years ago but the movement did not gain much support from public agencies until after the beginning of World War II. Altogether at least 20 farm safety specialists were at work at the beginning of 1951. Nine were employed by public agencies and 11 by private, farm-sponsored organizations. A few work on nonfarm safety as well.

Apparently this movement was actually started in 1934 with the employment of a health and safety director by the Illinois Agricultural Association, a Farm Bureau organization that sponsors several agricultural insurance programs. Credit for the initiation of this program goes to the farm women of the Illinois Home Bureau Federation. They based their appeal for an action program in prevention on the growing realization that mechanization was taking a mounting toll of tragic accidents among their husbands and sons. Although this was a private program affecting mostly its insured members, its influence spread and helped to make farm safety activities of greater State-wide importance. In 1936 the Ohio Farm Bureau Insurance

^{1/} A preliminary draft of this report has been reviewed by the State farm specialists and consideration given to their suggestions.

^{2/} The 12 States were: Calif., Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Ohio, Pa., Oreg., and Wis.

companies set up a safety program for its insured members, and the same year the Minnesota Farm Bureau Federation employed a safety director to head a program in that State. The effect of these programs, of course extended beyond the limits of Bureau membership.

The first public agency to employ safety specialists in agriculture was the California Industrial Accident Commission. In 1938, two engineers were hired to work exclusively with farmers in helping them to reduce accidents to employees that were insured under workmens' compensation. Shortly thereafter the program was reduced and, because of mobilization and a scarcity of engineers, it was temporarily abandoned in 1940. It was started again in 1948. But the first State-wide general farm safety program with legislative support was begun in Wisconsin in 1943 with the appointment of a specialist on the staff of the University of Wisconsin. This step meant the recognition of public responsibility for leadership in developing educational programs of wide application for prevention of accidents on farms and in homes.

This report presents a few facts about the farm home safety programs, such as their nature and status, in the hope that these facts will be helpful in making comparisons among States and to leaders in other States who may be contemplating the adoption of similar programs. For the most part, the data are based on interviews and correspondence with safety specialists during the spring of 1951.

There are other types of programs in farm and home safety that should be mentioned. It was largely on the basis of earlier ground work that the need for specialists was recognized. By 1951, some kind of farm-and-home safety activity was being undertaken in at least 40 States. Aside from the specialists employed in 12 States, Extension Service workers in State agricultural colleges in 30 States had been assigned safety matters in addition to their regular duties. State Farm Safety Committees had been organized in 24 States. In nine other States some progress was reported in the organization of such committees. By 1951, 20 safety specialists and 74 Extension Service workers - a total of 94 persons - were employed at least part time in farm and home safety work in 35 States. Publicity material on farm safety is being distributed by various organizations in all 48 States.

A valuable contribution to the farm safety movement has been made by industrial organizations, principally those which manufacture machinery and other products used widely by farmers. The National Safety Council, a private supported public-service organization, has been active in stimulating interest in safety and in helping farmers to develop programs that are adapted to their needs. Publicity materials developed by the Council are freely and widely distributed.

Primarily as a result of these efforts, farm and home safety is being observed by three annual events: Spring Clean-Up Week, observed between March and May; Farm Safety Week, observed the last full week in July; and Fire Prevention Week, which is observed during the week marking the anniversary of the great Chicago fire (October 9) in 1871. Packets containing material appropriate for the observance of these three events are distributed annually to many farm leaders and farm people by the National Safety Council, National Fire Protection Association, and the Department of Agriculture, in support of annual proclamations by the President.

Background of Farm Safety

Safety as a formal part of agricultural education is relatively new. But safety has always been of concern to farm people. There is ample evidence that our earliest farmers learned, practiced, and taught their children, how to deal safely with the habits of their work animals as well as with the use of their simple tools. But with advances in mechanization and changing economic conditions, brought about by the introduction of high-speed machinery, new types of hazards were introduced with which farmers were unfamiliar. They had to learn how to use these new machines - safely. High-speed motor vehicles on paved highways, tractors and other motorized equipment, and a wider use of electricity, were introduced faster than farmers could learn to use them in the best ways.

Despite the fact that these new hazards contributed to many tragic accidents, involving torn limbs and sudden death, there was a considerable lag in public recognition of the new dangers in agricultural production. It was not until the middle of the 1930's that organized efforts in a few States were started. The situation grew more and more acute as we mobilized for war, because, although greater skills were required of farm operators, the skilled labor supply was being depleted by the armed services and by the demands of war production. Perhaps principally because of the spectacular nature of these new kinds of accidents - many of them disabling - the movement to do something tangible about their prevention grew out of sheer necessity.

The National Safety Council set up the first farm safety section as part of its 26th annual safety congress in Des Moines, Iowa, in 1937.^{3/} By 1942 the first conference on farm and home safety was called by the National Safety Council.^{4/} In December 1942 the National Safety Council began the publication of a magazine, Home Safety Review, and in 1943 the Farm Safety Review, which is now issued bimonthly and is widely circulated among farm people. The Farm Division, with Maynard H. Coe as director, was created in the Council in 1944. This division has actively promoted interest in farm and home safety programs. It has supported the employment of State farm safety specialists, the organization of State farm safety committees, and the development of studies of farm accidents. In 1945 it organized the Farm Safety Institute, an annual assemblage of State farm safety specialists, for the purpose of program appraisal and for an exchange of ideas growing out of experience in the field of safety.

The U. S. Department of Agriculture, long interested in the field of farm and home safety, began to include safety as an important part of its educational programs in connection with 4-H Club activities in the 1930's.

^{3/} The late David J. Price, Bureau of Agricultural and Industrial Chemistry, U. S. Department of Agriculture, an authority on technical phases of farm safety, served as first chairman.

^{4/} T. A. Erickson, consultant in one of the large industrial firms in Minnesota, for many years 4-H club leader in Minnesota, and a leader in farm safety, served as chairman.

The Department's first farm safety publication, Watch Your Step, was issued in 1942 and has since been revised.^{5/} The Extension Service, acting under the Farm Labor Act of 1943 and in cooperation with the War Food Administration, instituted a comprehensive program on safety and health in connection with the migratory farm labor program during the war. Since the war, safety education for farmers has been extended as a part of the regular duties of county agents and specialists in the States.

The U. S. Department of Agriculture Safety Council was organized in 1944 with committees on farm and home safety, in addition to concern for safety for employee personnel. Committees of this council cooperate with outside agencies in the preparation of fact sheets for the annual observance of the three above-mentioned safety weeks. The first Nation-wide farm and home accident survey was conducted by the Department in the last quarter of 1946 and the first three quarters of 1948.^{6/} The survey was based on a representative sample of some 12,000 farms and covered a period equivalent to 1 year. The sample indicated that a total of 1,927 accidents on these 12,000 farms involved loss time of one or more days.

Through the vital statistics bureaus of the States, some limited data on fatal farm accidents have become available in recent years. The Kansas bureau was among the first to classify fatal accidents by occupations and to publish annual summaries of the causes of fatal accidents on farms. More recently, the National Office of Vital Statistics has correlated and tabulated the State figures by occupational groups. Three series of these tabulations covering, in all, the 9-year period 1940-48, have been analyzed in greater detail and published by the Bureau of Agricultural Economics. Statistics on farm accidents, both fatal and nonfatal, are summarized in Accident Facts, an annual publication of the National Safety Council. The Bureau of Labor Statistics of the Department of Labor also issues annual statistics on the number of farm-work accidents. The experience of insurance companies, principally those underwriting workmen's compensation insurance on farm employees, has contributed helpful information on the number, result, and insurance costs, of accidents to hired farm employees.

The National Education Association called the first national conference on safety education, participated in by representatives of colleges and universities, at Cincinnati, Ohio in November 1950.^{7/} The purpose of this conference was to promote safety on college campuses and to encourage the inclusion of safety courses in college curricula. One of the conference work groups developed and presented a plan for safety courses in agricultural education.

^{5/} U. S. Dept. of Agri. Misc. Pub. 481, 1942. Superseded by Misc. Pub. 608, Watch Your Step; Avoid Farm Accidents, 1946.

^{6/} The Farm Accident Situation in 1948, by Catherine Senf, Bureau of Agricultural Economics, in Farm Safety Review, May-June 1949.

^{7/} Safety Education by Colleges and Universities, National Commission on Safety Education, National Education Association, Washington 6, D. C., 1951.

More recently, T. A. Erickson furnished valuable information on the history of the farm safety movement in an article, The Origin and Progress of Farm Safety Education.^{8/}

State Programs

The first State farm safety specialists were employed by insurance companies that are sponsored by farm organizations. The primary motivating factor must have been a recognition, growing out of insurance experience with farm people, of the need for educational programs in the prevention of accidents. The general purpose was twofold: To reduce the economic loss and to render a public service to their clientele, as well as to other farm people, in helping to reduce injury, suffering, and sorrow.

Although in the main the purpose of the other programs was similar, different factors were involved. In those States in which programs were begun by the Industrial Accident Commissions, the safety work grew out of the implied powers granted to these agencies in the legislation creating them. Their duties were to effect a just compensation for injured employees covered by workmen's compensation insurance, and to help insured farmers to prevent accidents. The other programs, set up either in the State colleges, or, in one State in the Department of Public Instruction, were undertaken as part of the responsibility, implied in all Government-sponsored programs, for the safety and health of the general public. Active State farm safety committees aided by focusing public attention on the need for organized prevention activities on a public-supported basis.

The kinds of organizations sponsoring State farm safety specialists, the number of these specialists currently at work, and the dates on which the programs were started are listed, by States, in table 1.

In addition to the programs undertaken by the farm safety specialists in the 12 States previously mentioned, a total of 74 Agricultural Extension Specialists, employed by the State agricultural colleges in 30 States, undertake some farm and home safety activity in addition to their regular duties. A list of the States and the number of part-time safety workers, by type of Extension Specialist, is given in table 2.

All except one of the 94 specialists who devote full or part time to farm safety are men. The Indiana Farm Bureau employed a woman in 1949 as director of its Farm and Home Safety Department; she devotes at least half of her time to this work.^{9/} The leadership taken in Indiana seems likely to be followed elsewhere by the employment of women in home safety work.

Kinds of Activity

Another purpose of this study is to consider more specifically the character of the programs which have been developed by the safety specialists.

^{8/} Farm Safety Review, March 1951, published by Farm Division, National Safety Council. (See footnote 4.)

^{9/} Mrs. Paul Flinn is director.

Table 1.- States having safety specialists sponsored by public and private organizations and year in which program started

State	Public sponsoring agencies			Private sponsoring agencies			Total all programs
	Land grant colleges	Other State agencies	Year program started	Farm Safety duties only	Bureau programs and other duties	Year program started	
	Number	Number	Year	Number	Number	Year	Number
California . . .		1/ 1	2/ 1938	1		1950	2
Illinois . . .					3/ 1	1934	1
Indiana . . .	1		1946		4/ 1	1949	2
Iowa	1		1947	1		1950	2
Kansas				1		1949	1
Kentucky . . .					5/ 1	1950	1
Michigan . . .	6/ 1		7/ 1946				1
Minnesota . .	1		1949	1		1936	2
Ohio	8/ 1		1944	2/ 1	10/ 3	1936	5
						1946	
						1947	
						1951	
Oregon		1/ 1	1949				1
Pennsylvania .		11/ 1	1947				1
Wisconsin . .	1		1943				1
Total	6	3		5	6		20

1/ Specialists employed by State Industrial Accident Commissions.

2/ Two safety engineers assigned to farm safety in 1938 but shortly thereafter one was reassigned to other duties. This program, temporarily suspended in 1940, was resumed in 1948.

3/ Duties include safety and health.

4/ Woman appointed director of Farm and Home Safety Department with other duties.

5/ Director of Young Peoples and Safety Departments.

6/ Specialist in Health and Safety, Department of Sociology and Anthropology.

7/ Program originally started in Agricultural Extension Service.

8/ Specialist employed jointly by Ohio State University and the Ohio Industrial Accident Commission.

9/ Director of Safety with duties in several States, involving farm and nonfarm safety.

10/ The specialists are, respectively, supervisor of programs, of youth activities, and of driver training for Farm Bureau Insurance Companies with duties involving farm and nonfarm safety in the several States in which companies operate.

11/ Farm and Home Safety Education, Department of Public Instruction.

Table 2.- States in which farm and home safety activities are assigned to the Extension Service of State agricultural colleges, by number and type of specialists

State	Type of extension workers assigned safety duties		
	Agricultural engineers	Other type of extension specialists	Total specialists
	Number	Number	Number
Alabama	3	1/ 1	4
Arkansas	2		2
California	1		1
Connecticut	1		1
Georgia	1	2/ 1	2
Illinois	4		4
Idaho	1		1
Iowa	3		3
Kansas	5		5
Louisiana	2		2
Maine	1		1
Maryland	2		2
Michigan	1		1
Mississippi	5	2/ 2	7
Missouri	1		1
Nebraska	2		2
New Hampshire	1		1
New Jersey	1		1
New Mexico	1		1
North Carolina	5		5
North Dakota	1		1
Oklahoma	1		1
Oregon	1	1/ 2	3
Pennsylvania	4		4
South Carolina	5	3/ 1	6
South Dakota	1		1
Tennessee	4	3/ 1	5
Texas	1		1
Virginia	4		4
West Virginia	1		1
Total	66	8	74

- 1/ Rural Housing Specialists.
 2/ Rural Electrification Specialists.
 3/ Cotton Ginning Specialists.

In the 12 States listed in table 1, the specialists work principally with farm people, although in some instances nonfarm people also are served. Each works within a single State, except those employed by the Ohio Farm Bureau Insurance Companies. The latter divide their time between farm and nonfarm groups and among the several States in which the insurance companies operate. The scope of the services generally provides for the protection of life and property, including fire prevention. In two States, Michigan and Illinois, rural health is part of the program.

College courses in safety education are conducted by three of the specialists - those in Iowa, Michigan, and Ohio. In Kansas, the specialist teaches classes in traffic safety in high schools upon invitation from school authorities. Extension programs for adult and youth groups, consisting of lectures and safety demonstrations with models, movies, and other visual aids, are conducted in all States. Some field work, such as accident surveys to ascertain the number, kinds, and causes, of accidents, is undertaken by specialists in nine States.

Programs in three States - those sponsored wholly or partly by the Industrial Accident Commissions - relate more specifically to the implied powers of legislation that generally require farmers to maintain a safe place for their employees to work and to provide such safeguards as are considered reasonable and necessary. The term enforcement, as usually applied in connection with farm safety, touches only one phase of the problem - that of the responsibility of the farmer for acts that may affect the safety of the general public and of his employees. The programs of the specialists employed by the Industrial Accident Commissions, however, are aimed at prevention rather than at regulation; that is, an effort is made to instruct farmers in safeguarding their employees. Neither these programs nor safety laws, of course, can require farmers to protect themselves.

Along with the 20 State safety specialists, at least 16 other persons are employed to assist in this work. Two are professional workers (1 full-time and 1 part-time), and 2 are full-time and 12 are part-time clerical workers. The estimated total annual budget for these 36 workers in safety was about \$130,000 during 1950. Items in the budgets included salaries, travel expense, working equipment, such as visual aid and other demonstration materials, printing and office rent (or its equivalent).

Action Program of Specialists

Perhaps the biggest and the most time-consuming job, is that of enlisting the active support of local leaders, upon which can be built the organizational groundwork for an effective program. Examples are the organizing of county committees and working with farm leaders, farm organizations, and other interested groups, in formulating and developing programs that are most needed in local accident prevention. Active participation by all farm groups in a State is the goal of the specialist. He must get as many farm families as possible interested in safety.

Second only to this groundwork is the holding of group safety meetings or clinics for both young people and adults, in which safety principles are discussed and presented through visual aids and model demonstrations. Complete

information on attendance at such group safety meetings is not available, but it is estimated that more than 250,000 farm people attended during 1950. In addition, the specialists loaned motion-picture films to many groups who showed them as a part of their educational programs. In this way perhaps additional thousands of people received some benefit.

A third activity, in the order of time devoted to it, is the preparation and distribution of accident prevention literature for news releases and radio broadcasts. In 4 States in which the circulation was known of the agency periodicals, newspapers, or mimeographed leaflets, monthly articles on timely safety information were carried in at least 245,500 issues. In 3 States in which the publications were issued weekly, the total circulation was 28,000 issues. Nearly all of the specialists broadcast timely safety news and safety warnings over local radio stations.

A fourth activity, in the order of general participation by these specialists, is sponsorship or cooperation with sponsors of safety contests, predominantly among young people. Fire-prevention contests were sponsored in at least 6 States. Such contests are often based on the location and removal of hazards, with the aid of hazard check lists, or upon the preparation of essays dealing with prevention. Reports from 4 of these States indicated that a total of 4,880 young people took part in these contests. In 3 States the specialists promoted, or assisted in sponsoring, safe or skilled drivers' contests for young people, with active participation by at least 7,400.

A fifth activity is that of organizing groups of farm leaders and training them in farm and home safety rules. Six of the specialists conducted these training schools and 6,596 persons took part - mostly adults.

A sixth general activity is the conduct of surveys, with the help of local groups, to collect facts on the nature, extent, cause, and kind of accidents that had occurred. In addition, the specialists in 5 States collected and analyzed local newspaper reports on farm accidents. In about half the States the specialists obtained summaries of farm accidents that had been tabulated and analyzed by the vital statistics bureaus. The practice of obtaining accident data from hospital records was undertaken in one State; in another, statistics on losses by fire were obtained annually from the State Fire Marshal.

Other related activities and the number of States that reported them, are as follows: Farm inspections to locate and remove fire hazards, in 4 States; general farm inspections for the purpose of making farms safe places to work, in 2 States; awards made to families without an accident during whole year, in 1 State; safety in connection with a tractor rodeo, in 1 State; farm implement, particularly tractor, safety program, in 1 State; safety in connection with a plowing match, in 1 State; safety in corn harvesting, in 1 State; 4-H Club dairy safety, in 1 State; and safe camping, in 1 State.

Appraisal of Current Safety Programs

Data are being gathered in various ways by the farm safety specialists to provide basic information on the causes of accidents and to develop standards and criteria for measuring the results of prevention programs. But the current safety programs are doubtless too new for the limited experience to indicate

clearly their future pattern. Then, too, as changes occur in agricultural production, the programs must be adapted to meet the new conditions.

From the outset these programs have been directed generally toward enlisting the cooperation and active participation of the farm organizations. All stages of development are represented with respect to active cooperation by groups. For example, in some States the problem is to obtain cooperation, whereas in States in which that phase of the program has been effected, the next problem is how to encourage these organizations to pass the word of safety along to individuals.

Some progress is being made in the integration of safety into basic subject matter for presentation to students. For example, in shop courses, where tractor operations are taught, the matter of how to operate the tractor safely is included in the regular course. In technical bulletins which explain the use of chemicals, wood-working machinery, or similar occupational hazards, safety precautions in the use of the chemicals or in the handling of tools and machinery are being included. The specialists believe that the administrative cooperation that enables them to review these technical bulletins so that needed safety precautions may be included is a step toward integrating safety and making their services more valuable.

They generally believe that the quality of research material available for promoting safety is inadequate and that much more work needs to be done before safety programs can be improved greatly. In some States the specialists were asked to comment on the results of their work; the gist of their statements is given below:

California.-- Farmers apparently are more willing now to accept suggestions on how to make their operations safer. County safety committees seem to be more active, as more agricultural leaders are taking part. An active interest in safety is noted particularly in 4-H Club work. Farm accidents reported in 1950 were less than in 1949, particularly those involving vehicles, hand tools, and ladders.

Illinois.-- Safety is discussed more widely than formerly, but direct results are difficult to appraise with the information that is available.

Indiana.-- Farm people are more safety conscious than ever. Some of the farmers are taking time out to do something about it. There aren't enough comparable data to detect trends in the frequency and severity of accidents and fires.

Iowa.-- At the beginning of the safety program, farmers were not greatly interested; but apparently as a result of the safety publicity, many seem to have changed their attitudes and are willing to take some action to reduce accidents. There is a notable increase in interest among young people on farms, as a result of contests and other programs specifically directed toward their interests. Corn-harvest accidents have been reduced largely because of their spectacular nature. Although farm-fire losses in dollars may continue to be high because of inflated conditions, the number of fires is fewer than formerly, with a corresponding reduction in the total physical loss.

Kansas. - The most pronounced apparent result of safety activities has been the reduction in the number of auto accidents among farm young people. As the skilled-driver program has been expanded, its direct effect has been to lower the traffic accident rate among young people.

Kentucky. - As a result of the farm-safety program, farmers who have been involved in accidents have been encouraged to discuss their experiences; this has had the effect of warning others to guard against similar occurrences.

Michigan. - Safety education has changed the attitude of people toward hazards. They now try to locate and remove these hazards. Figures with which to measure actual results are not available.

Minnesota. - Results of Minnesota's farm safety activities is exemplified by the surveys conducted in Kandiyohi County. Several years ago the occurrence of 18 serious accidents involving corn pickers in that county brought action. A drive was made to urge farmers to be more careful with their corn pickers. Information was furnished on how to deal safely with them, especially with jammed rolls. The next year only two such accidents were reported. Because interest regarding safety has abated somewhat, corn-picker accidents have begun to increase again; but the campaign has had a salutary effect. As farm people learn of safety measures they tend to have fewer accidents. There has been increased interest in presenting safety exhibits and demonstrations, and in conducting safety clinics.

Ohio. - Indications are that accidents are definitely being reduced as a result of the farm safety program. Comparable statistics indicate that fatal accidents have been reduced from 507 in 1946 to 424 in 1950. All farm groups are taking active part in the program.

Oregon. - Increased interest in safety on the part of farmers has been noted since the safety program was started.

Pennsylvania. - It is believed that the accident rate is declining. There is increasing interest in safety by individuals as well as by organizations.

Wisconsin. - It is noted that farm people are becoming more safety conscious. Commercial concerns which have a stake in agriculture are also demonstrating more interest in promoting safety. There are fewer accidental deaths than formerly. Animal-caused deaths are down, but tractor accidents are up. Fire losses continue to be high, but this is largely because of increased valuations.

Problems Facing the Specialists

The problem most often mentioned by the specialists was how to overcome the apathetic attitude of farm people toward safety. Most farm people have had no training in safety measures. As the programs developed so far by the specialists are comparatively new, interest in the subject is not strongly developed. To convince farm people of the seriousness of accidents, more information is needed on their frequency and causes at the local level. These data are generally lacking.

The question, "what do you consider the main problems facing you in your work?" was asked the specialists. An analysis of the answers is given in table 3.

Table 3.- Analysis of problems facing State farm safety specialists

<u>Character of problem</u>	<u>Specialists reporting 1/</u> (Number)
1. General problems of approach:	5
a. Lack of sufficient data to develop a program fitted to the needs	1
b. Difficulty of sponsoring organizations to reach individuals	2
c. Difficulty of initiating programs among farm people who generally lack safety training and education	1
d. Difficulty of getting wider cooperation by organizations and individuals	1
2. The problem of attitudes:	9
a. Generally apathetic to safety	5
b. Farmers don't expect accidents to happen to them	1
c. General failure to accept responsibility for leadership in safety promotion	3
3. Problems of facilities:	2
a. Staff too small to do job adequately	2

1/ Some State specialists listed more than one kind of problem.

Recommended Types of Approach

These specialists suggested several interesting approaches which they believed would enable them to make greater headway in their work among farm people. In general, the practical approach - identifying hazards and how to remove them or reduce their danger - was most often suggested as the best way to stimulate interest. It was pointed out that the process of looking for, detecting, and determining how to remove or minimize hazards, appeals to most people. Almost as many specialists, however, recommended that interested local groups should conduct safety meetings to stimulate interest.

Table 4 lists the activities recommended by the safety specialists as having the best chance of success.

Table 4.- Types of approach recommended as most productive in establishing farm and home safety programs

<u>Type of approach</u>	<u>Specialists recommending</u> (Number)
1. Over-all or organizational-	
a. Encourage local leadership, safety committee organizations	5
b. Try to enlist the interest of youth groups	3
c. Get the cooperation of agencies, organizations	2
d. Take a positive (not a negative) approach to safety	1
2. Educational-	
a. Arrange for safety meetings to discuss problems	6
b. Use models and other materials to demonstrate safety	4
c. Show movies adapted to farm safety problems	4
d. Utilize publications and radio	4
e. Keep telling the story of safety over and over	2
f. Teach importance of having fire extinguishers on hand	1
g. Arrange tours to visit farms where safety is practiced	1
h. Teach the three R's in fire safety	1
i. Promote skilled-driver training courses	1
3. Enforcement-	
a. Recommend some degree of enforcement	1
4. Action programs-	
a. Conduct hazard hunts and demonstrate how to remove them	6
b. Conduct surveys to discover facts of accidents and fires	3
c. Conduct contests on safety and fire prevention	3
d. Use color scheme to warn against hazards	1

What Qualifications Should a Specialist Have?

Drawing on their own experience, the farm safety specialists stated that a specialist should have a basic knowledge of farming and the ability to understand and work with farmers. Next came the need for a thorough knowledge of technical information on safety and the principles of accident prevention.

In table 5 are listed the qualifications that the specialists believe a safety specialist should have.

What Should the U. S. Department of Agriculture Do?

The specialists made a few suggestions regarding the possible role of the Department of Agriculture in the promotion of farm and home safety. The specialists suggested the following answers to the question, "What specific contributions to the Farm Safety Program should be made by the U. S. Department of Agriculture?":

California.- Do research. Continue a farm safety program through the Extension Service.

Illinois.- Continue the national farm- and home-accident surveys.

Table 5.- Suggested qualifications for safety specialists

<u>Qualifications</u>	<u>Specialists reporting (Number)</u>
1. Experience, education, and training-	
a. Farm background	9
b. Knowledge of teaching techniques, process	6
c. Knowledge of technical information on safety	6
d. Experience in agricultural extension service	1
e. Knowledge of farm organizations	1
f. College degree	1
2. Personality-	
a. Ability to work closely with farmers	7
b. Good speaking ability to present subject well	5
c. Ability to organize groups, aggressiveness	3
d. Good personality, attract others	3
e. Be a promoter	2

Indiana.-- The basic principles of fire protection could be enlarged. We need to know more about the behavior and mental attitudes of farm people. We need more technical information.

Iowa.-- The Department could assume some features of leadership in this field. It could continue research on a national basis. Specific research can be done locally. It could lead a national safety research program by cooperating with the States. Research should be undertaken to make farm machinery and farm homes safe.

Kentucky.-- The emphasis should be strictly on research, not on administration. More agencies and bureaus of the Department could have safety representatives. As an example, why could we not have a farm safety man in the Soil Conservation Service?

Kansas.-- The Department could report on existing State programs, both those of the Agricultural Extension Service and those conducted by private agencies, such as the Farm Bureaus.

Michigan.-- The matter of providing visual aids in safety education is wide open to the Department. It should make safety a regular part of the work and bulletins of all agencies in the Department. It would be helpful if safety programs could be undertaken by crop reporters, farm management workers, Soil Conservation Service personnel, and Rural Electrification Administration employees. Safety kits are helpful. We need more safety films such as "Miracle in Paradise Valley." The field of supplying information on fire prevention is wide open.

Minnesota.-- The Department could give advice on farm safety. We need to know more about what is done on farm safety nationally.

Missouri.-- (There is no full-time farm safety specialist but representatives of the Extension Service of the University of Missouri furnished the following information) General statistics are helpful as well as articles on what other

States are doing in farm safety. We want to know the costs of hazards. We need to pay particular attention to rehabilitation - we've never followed through on rehabilitation of victims of farm accidents.

Pennsylvania.-- The Department might provide an accident-reporting service through the crop reporters.

Ohio.-- It was a big help when the Department conducted the farm accident surveys in 1946, 1947, and 1948. There is great need for more visual aids in safety education. The Department could cooperate with producers of visual aids. Help could be given with respect to fire prevention. We want better and more complete statistics.

Oregon.-- Do research work.

Wisconsin.-- The Department could assign one man specifically to farm-safety work. Safety programs could be coordinated. The Department could encourage colleges to employ safety people and could, in those States that are without specialists, promote such services. The Department could help with material for educational use.

Accident Studies

The specialists widely recognized the need for more comprehensive studies of accidents, covering not only the agency associated with injury, but also the attitudes of persons involved, as contributing factors.

An analysis of the type of information collected in 18 accident studies, either projected by the specialists or used by them in their work, is given in table 6.

Table 6.- Analysis of 18 farm-accident studies, by type of information presented

	<u>Number</u>
1. Agencies sponsoring farm-accident survey:	
a. Colleges	11
b. State Health Departments	2
c. Physicians-surgeons	1
d. State Industrial Commissions	1
e. Insurance companies	1
f. U. S. Department of Agriculture	2
2. Source of data used in analyzing farm accidents:	
a. Surveys	6
b. Newspaper clippings	4
c. Vital statistics	4
d. Hospital records of accident victims treated	2
e. Insurance experience (workmen's compensation)	1
3. Extent or result of injury:	
a. Fatal	15
b. Permanent total disability	3

c. Permanent partial disability	2	
d. Permanent injury, not otherwise classified	4	
e. Temporary total disability	11	
(1) Temporary disability 7 days or less	1	
(2) Temporary disability more than 7 days	1	
(3) Cases involving no loss of time	1	
4. Place of occurrence of accident:		
a. On the farm	7	
b. In the farm home	10	
c. In or around the farm barn	3	
d. In rural areas	1	
e. Off the farm-		
(1) On the highway	5	
(2) Public place	3	
(3) Off the farm but not otherwise classified	4	
5. Nature of injuries:		
a. Bruises	6	
b. Fractures	5	
c. Dislocations	2	
d. Amputations	3	
e. Infected wounds	4	
f. Sprains	3	
g. Punctures, cuts, abrasions	6	
h. Including major part of body	2	
6. When accident occurred:		
a. Hour	2	
b. Day	1	
c. Month	10	
d. Year	18	
7. Activity and agency associated with occurrence of accidents:		
a. At work:		9
(1) Explanation of action involved	5	
(2) Unsafe act of victim	4	
(3) Unsafe use of equipment	3	
(4) Lack of training in job	3	
(5) Unsafe environmental factors	1	
(6) Act of third party involved	2	
(7) Activity not otherwise classified	5	
b. Not at work:		4
(1) Explanation of activity	4	
(2) Recreational	4	
c. Agency involved in accident:		18
8. Occupational status of accident victims:		
a. Operator	3	
b. Member of operator's family	3	
c. Hired farm employee	4	
d. Visitors and others	1	
9. Age groupings:	12	
10. Sex of victim:	5	
11. Treatment received by victim:		
a. First-aid treatment	1	
b. Treatment by doctor or nurse	1	
c. Hospital treatment	1	
12. Duration of disability:		
a. Days lost time (only during period of survey)	4	
b. Days receiving hospital treatment	2	

Publications on Farm Safety

Published reports on farm accidents, some more complete than others, are available from the specialists in California, Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Oregon and Wisconsin. Farm fire losses have been analyzed and published in Michigan and Ohio.

Materials for administrative use, consisting of suggestions or outlines for the organization and promotion of farm and home safety programs in rural communities, have been developed and published in Indiana, Michigan, Minnesota, Ohio, Pennsylvania and Wisconsin. Check lists of various types for guiding farm people to detect and remove hazards to lives and property have been developed and issued in Indiana, Illinois, Iowa, Michigan and Wisconsin.

Some of the more recent technical bulletins issued on farm and home safety by subject matter and by States are as follows: Inspection of Automobiles, in Illinois; Home Wiring for Safety, and Combustible Liquids, in Indiana; Preventing Highway Accidents with Reflectors, and Care and Use of Hand Tools, in Minnesota; and Corn Picker Efficiency Means Safety, in Ohio.

Current bibliographies of films by title and by producer were available from the specialists in Kansas and Pennsylvania.

Summary and Conclusions

The work of the farm and home safety specialists is comparatively new in the field of agricultural education. It is generally expected that this work will gain wider recognition and favor as results in the prevention of accidents are obtained. The first farm safety programs were developed by insurance companies in an effort to reduce accidents to farmer policyholders and their employees. It was almost a decade after an insurance company had sponsored the first farm safety program that agricultural leaders obtained legislative appropriations providing for teaching farm safety in a State college. Such education of our young farm people seems imperative; development of safety habits need to be considered a part of the basic educational process.

The major problem emphasized by most of the farm safety specialists was how to overcome the apathy of farmers toward safety. Of course interest in safety - the key to action - stems from knowledge. If more were known about the principal causes, by seasons of the year, and the conditions leading to accidents, education in accident prevention could be better geared to need. The real bottleneck to greater progress in farm safety, therefore, seems to be a lack of information upon which to base safety appeals that can be adapted to local situations.

Accident statistics must be comparable so that one worker can compare his results with those of others. There is evidence that several questionnaires used in certain States for collecting accident data were similar but the specialists could make a distinct contribution to the gathering of facts on accidents if they could develop a uniform reporting system. The National Safety Council has promoted the use of this kind of uniform reporting form.

As these programs have tended to emphasize farm-work and highway accidents, several specialists believe that additional women should be employed in extension work aimed to prevent accidents in farm homes.

If some practical way could be found whereby the results of these programs could be measured, program appraisal would be possible. Measurement of program results is difficult, as emphasis shifts or as only one segment of the safety problem is undertaken at a time. But the specialists realize that some checking device such as recurrent surveys or the culling of newspapers for farm accidents, and their analyses, might provide a means for evaluating results.

Continuing research in making machinery as safe as possible for farm use is considered necessary by practically all who are actively interested in safety work.

Another type of activity, as yet barely touched, is the collection of data on the costs of accidents in terms of time lost, doctors' and hospital bills, etc. Such information provides a factual basis upon which interest in the prevention of accidents can be stimulated. Some notion of the risk cost of accident and health insurance, and liability and workmen's compensation insurance covering hired workers, is available from the companies underwriting these hazards, but these costs do not cover all of the loss or damage involved.

It is believed that the activities of these 12 States in farm safety will be followed by activities in other States as the work gains headway and gives clear evidence of encouraging results.

Roster of Farm and Home Safety Specialists, by States and by Sponsors

- Calif.: William A. Wilson, engineer, Industrial Commission, Los Angeles
A. E. O'Donnell, safety director, Farm Bureau, 2223 Fulton St., Berkeley
- Ill.: John A. Lake, director safety and public health, Illinois Agricultural Association, 43 E. Ohio St., Chicago 11.
- Ind.: F. R. Willsey, farm safety specialist, Agricultural Extension Service, Purdue University, Lafayette.
Mrs. Paul Flinn, director Farm and Home Safety Department, Indiana Farm Bureau, 47 South Pennsylvania Street, Indianapolis 9.
- Iowa: Norval J. Wardle, director of safety, Agricultural Engineering Extension, Iowa State College, Ames.
Howard Hass, safety director, Farm Bureau, 10th and Grand, Des Moines 9
- Kan.: Grice Sexton, safety director, Farm Bureau, 417 Humboldt St., Manhattan.
- Ky.: John Koon, director young peoples' department and safety department, Farm Bureau, 120 S. Hubbard Lane, Louisville 7.
- Mich.: David G. Steinicke, extension specialist in health and safety organizations, Department of Sociology and Anthropology, Michigan State College, 107 Merrill Hall, East Lansing.

- Minn.: Glenn Prickett, farm and home safety specialist, Agricultural Extension Service, University of Minnesota, St. Paul 1.
W. A. Dickinson, safety director, Farm Bureau, 478 St. Peter St., St. Paul 2.
- Ohio: W. E. Stuckey, farm safety specialist, employed jointly by the Agricultural Extension Service and the Ohio Industrial Commission, office Ives Hall, campus Ohio State University, Columbus 10.
*Harry Pontious, safety director, Ohio Farm Bureau Insurance Companies, 246 North High Street, Columbus.
*Edward S. Adams, supervisor of programs, Ohio Farm Bureau Insurance Companies, 246 North High Street, Columbus.
*George M. Tewksbary, supervisor of Youth Activities, Ohio Farm Bureau Insurance Companies, 246 North High Street, Columbus.
*Wenzel W. Morris, supervisor of Driver Education, Ohio Farm Bureau Insurance Companies, 246 North High Street, Columbus.
- Oreg.: James Wiles, engineer, Industrial Accident Commission, Salem.
- Penn.: Samuel L. Horst, chief, farm and home safety education, Department of Public Instruction, State Office Building, Harrisburg.
- Wis.: Randall C. Swanson, farm safety specialist, Agricultural Engineering Extension Service, University of Wisconsin, Madison.

* Employed full time in safety education program of companies, including farm safety activities.

